7. (13 points) The following graph gives a taxi driver’s velocity (in miles per hour) as a function of time. Assume the driver only travels on a straight road east and west. Positive velocity indicates travel to the east, negative velocity indicates travel to the west. Assume the driver starts his day at the airport at 6 am when $t = 0$, and that the intervals between each tick mark on the horizontal axis correspond to one hour. The area of each shaded region is indicated on the graph.

(a) At approximately what time(s) is the driver’s acceleration 0?

(b) If the taxi driver takes a break at 10 am, how far is he from the airport? Be sure to note whether he is east or west of the airport. Justify your answer appropriately.

(c) At what time is the driver the furthest from the airport? How far away is he at this time?

(d) How many times after 6 am during the day does the driver pass the airport?